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(54) Title: A METHOD FOR ANALYZING THE SPATIAL DISTRIBUTION OF A CHEMICAL SUBSTANCE RETAINED BY A BIOLOGICAL MATTER

(57) Abstract: A method of analyzing the spatial distribution of at least one chemical substance retained by a biological matter comprises the steps of (a) supplying a sample of said biological matter as a specimen surface; (b) producing at least one imprint of said specimen surface on at least one corresponding separate substrate surface, said at least one chemical substance being transferred to the same with retained lateral distribution thereon; (c) subjecting said at least one imprint to imaging mass spectrometry, at least one signal from at least two points being produced, the magnitude of said at least one signal being dependent on the amount of said at least one chemical substance laterally present on said substrate surface; (d) recording said at least one signal from said at least two points; and (e) determining said spatial distribution of said at least one chemical substance from said at least one image of said at least one imprint.